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A LIFE SAVING DEVICE FOR SHIPS

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Translation of "Dispositivo de Salvataje para Naves,"  
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16. Abstract  A patent describing a life-saving device which can be used on either ships or airplanes. The device consists of an airtight container for passengers equipped with elements needed for survival (oxygen, food, medicines, etc.), an energy source, and a parachute. This device is ejected from the plane or ship when an emergency arises.					
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DESCRIPTION  
of a  
PATENT

On:

A Life Saving Device for Ships

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For the Period of 15 Years

## A Life Saving Device for Ships

P. Converti

This patent refers to a life saving device for ships, /1\*  
both aircraft and maritime vessels.

More specifically, this patent protects a device of the type specified, which belongs to the group of small craft carried in different numbers by ships making extensive voyages. These craft accommodate groups of people in emergencies, whether due to fire, shipwreck, or difficulties in staying afloat or aloft.

The above-mentioned accidents are particularly serious in aeronavigation and are complicated by panic among passengers, which has an extremely detrimental effect. If any of these situations occur during flights over the high seas, the only recourse presently known is the use of rubber boats and parachutes. Both of these solutions involve serious dangers and precarious conditions in view of the sea's inclemencies. Similarly, when these accidents occur during flights over dry land, the only known recourse is the use of parachutes. Although the dangers are fewer, this solution involves problems which are impossible to predict due to the characteristics of landing areas. In addition, it has also been proved that there have been accidents so serious and unexpected that all the crew and passengers have not had enough time to organize, prepare themselves, and jump. /2

Similarly, when ships transporting passengers wreck, the only available recourse is the use of boats or launches which these

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\*Numbers in the margin indicate pagination in the foreign text.

ships normally carry for aid. It is known that such small craft are not safe enough on the high seas, especially during storms or rough swells.

This means that at present there are no totally safe life saving elements for either air or sea. The device described in this patent provides the solution to this inadequacy.

In effect, this new life saving device consists of a container which provides the following conditions: a) it is totally and hermetically sealed; b) it can hold a group of people; c) it floats; d) it allows the occupants to see their surroundings; e) it contains resources for survival for several days, despite being totally sealed, since it is stocked with compressed oxygen, water, food and medicines for at least first aid, clothing, a source of energy for lighting and signaling, etc.

With current knowledge of electrical energy, wireless communication, concentrated food, etc., it is possible to equip each container well enough to ensure its occupants' survival for the number of days needed to reach land, or (which is more probable) until appropriate help arrives, i.e. helicopters /3 helicopters or ships which have somehow learned of the accident, possibly by having received calls for help sent by the device's occupants.

In order to make this invention easier to understand, two sheets are attached which illustrate non-limiting examples. These examples were schematically drawn on no particular scale and are described below.

Figure No. 1 shows a view in perspective of an aircraft equipped with a number of the devices described in this patent.

Figure No. 2 is a schematic lateral view of the aircraft depicted in the preceding figure.

Figure No. 3 is a cross section on a larger scale, indicating one of the many ways provided for opening the fuselage and launching the life saving units, as per this invention.

Figure No. 4 is a diagram similar to the one in the preceding figure with another of the variations provided for opening and launching.

Figure No. 5 is another variation of the same aspect.

Figure No. 6 is a cross section on a scale even larger than in the preceding figures, making it possible to observe more 4 details.

Figure No. 7 is the schematic view of a plan for an ocean-going ship, with devices as per the same invention.

The same reference numbers are given to similar or equivalent parts or elements constituting the assemblies in all figures. These assemblies are examples given only as illustrations for this explanation of the invented device.

As can be clearly seen in Figures 1, 2, and 7, the device described in this patent consists of several survival units (1), all hermetically sealed and placed in an orderly way in the fuselage (2) of a passenger plane or the hull (3) of a conventional transatlantic ship, respectively.

The respective gates (4) close outside the corresponding spaces where the units (1) are housed. These gates can be released quickly.

In the case of an aircraft (Figures 1-6), the survival units (1) consist of hermetically sealed, preferably spherical containers, each of which has two concentric walls. These walls will be made of nonflammable material; they will also be plated with steel whose exterior has been painted with fireproof material. The interconnection between the external and internal walls is elastic in order to absorb possible shocks or /5 impacts from the fall. This feature is indicated with internal springs (5).

Still referring to survival units for airplanes, these units will have upper hooks (6) which can be grasped by helicopters. They will also have doors and windows (7) and (8) for obvious reasons. In addition, two or more (preferably floating) shoes (9) will be symmetrically positioned in the lower area; they can be useful for helping to stabilize the unit when it is floating at sea, or can be a means of support or a supporting leg if the unit is deposited on dry land.

These units are fastened inside the plane's fuselage with means capable of supporting them rigidly while flight conditions are normal. At the same time, these units can be released or freed immediately if an accident is foreseen or a problem occurs during flight. In addition to instantaneous release of the units (1), the respective individual gates (4) will open. All of this will be centrally operated from the cockpit and complementary manual operating elements will be located within the passengers' reach inside the abovementioned units.

Figures No. 3, 4, 5, and 6 give some examples of /6 suitable methods for opening the gates (4) instantaneously. Note that many other methods may be adopted, but that this does not affect the protection given by this patent, since this invention's novelty does not depend on the method used, but on the foresight of including any method or a similar suitable



method. The arrows (F) shown with dotted lines in Figures No. 3 and 4 serve only to indicate how both gates (4) begin to move with respect to the fuselage (2). It must be noted that among the many possible methods are some which propel the containers (1) with their passengers outward by using explosive elements with appropriate expanding power.

In an emergency, once all units (1) with their occupants have been ejected from the aircraft, their survival guaranteed, and rescue is completed with complementary outside work generally undertaken by third parties. Thus, for example, if these units are floating at sea, or land in jungles, deserts, mountains, etc., each one of them will be hung from a helicopter, taking advantage of the upper hooks -6-, and will be transported to a suitable place so that the passengers can vacate the abovementioned containers.

Moreover, there is a housing for a parachute in the /7  
upper area (10) of each container. This parachute can be of the type which automatically unfolds when these units separate from the fuselage, or of the type which can be manually and directly operated by the occupants. Again, this detail does not affect this invention's novelty.

Once the survival units (1) are released, their occupants will remain comfortably in their seats (11), freed from the plane's fate and descending slowly until the containers hit water or land. The parachute is independent in either case. The airtight double wall protects the passengers from cold, water and/or low pressure in the case of high altitude.

Each unit will have some means of radio communication powerful enough to emit an acceptable signal. This signal will serve to locate the unit. In addition, enclosures (12), (13), (14), etc. will be included for holding water, oxygen, food, medicine, tools, etc. in order to ensure the occupants'

survival until such time as they are rescued, which can even mean for several days.

The survival units (1) will be conveniently distributed in pairs, as can be seen in Figures No. 1, 3, 4, 5 and 6. This leaves an intermediate longitudinal passage on which all the units' corresponding doors (8) converge, thus permitting /8 comfortable internal circulation while the flight proceeds normally.

Regarding survival units (1) for ocean vessels, as shown in Figure 7, the need for parachutes and a spherical-shaped containers no longer applies. However, all else said about separation from the ship is applicable since, for example, if a ship is on fire or sinking, the airtight double wall and all the other resources for first aid, food supply, etc. previously described are extremely useful.

When implementing the life-saving device thus described and illustrated, many modifications and/or improvements can be introduced. All modifications and improvements should be considered variations for implementation which are included within this patent's scope of protection. This scope is basically determined by the text of the following claims.

#### CLAIMS

Having described and illustrated the nature and /9 principal purpose of this invention, as well as the way in which it can be implemented, the following are claimed as property and exclusive rights:

1. A LIFE-SAVING DEVICE FOR SHIPS of the type suitable for housing several groups of passengers in emergencies such as

fires, plane crashes or shipwrecks, etc. Each group is provided with methods, tools, and elements for surviving several days while waiting for outside help or favorable, normal living conditions. This device is characterized by the fact that it consists of a floating, resistant container with two concentric airtight walls, elastically interconnected and equipped with at least one access door and a window with an airtight seal. This container, along with several other similar containers, is located inside the ship and adjacent to the ship's exterior shell, which has a gate for each container. Each container is equipped with means for sealing it which can be released simultaneously from a cockpit or manually and independently operated.

2. A life-saving device for ships, as per the claims in item 1, characterized by the fact that each of the airtight containers is spherical and its two walls are very concentric.

3. A life-saving device for ships, as per the claims in item 1, characterized by the fact that each of the airtight containers is ellipsoidal and rotates around its major axis.

4. A life-saving device for ships, as per the claims in items 1 through 3, characterized by the fact that a source of electrical energy is installed in each of the airtight containers.

5. A life-saving device for ships, as per the claims in items 1 through 4, characterized by the fact that a number of seats are fixed in each container, preferably individual seats with reclining backs.

6. A life-saving device for ships, as per the claims in items 1 and 2, characterized by the fact that an outwardly releasable parachute is housed in its apex.

7. A life-saving device for ships, as per the above claims, characterized by the fact that each of the airtight containers includes several independent enclosures, both under the floor and above the ceiling, in which means and tools for survival are housed.

8. A life-saving device for ships, as per the claims in items 1 and 2, characterized by the fact that a fixed ring of the type which can be hooked under a helicopter emerges from the outer face of its apex.

9. A life saving device for ships, totally in accordance with the information given in the description, illustrated in the drawings and for the purposes specified.